

# R2RD1T, R2SD1T

## 2" Volta Tunable White - Shallow Regressed Downlight Trim

WAC®



Fixture Type:

Catalog Number:

Project:

Location:

### PRODUCT DESCRIPTION

Volta 2" Tunable White recessed series represents an innovation in design and technology for architectural lighting. This high lumen and adaptable family of fixtures with a comprehensive set of round and square fittings, affords a sustainable solution for commercial, corporate, and upscale residential applications.

### FEATURES

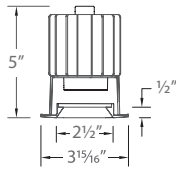
- Natural and vivid precision LED CCT tuning
- Increased field angle for reduced scalloping
- Low ceiling and close-to-wall applications
- Integral patterned tempered trim lens included standard
- Compatible with a wide range of accessories
- 5 year WAC Lighting product warranty

### SPECIFICATIONS

**Construction:** Durable die-cast self-flanged aluminum construction  
**Input:** Universal 120 - 277VAC 50/60 Hz  
**Dimming:** 2 Channel 0-10V: 100-0.1%  
 2 Channel DMX512-A, with RDM: 100-0.1%  
 Linear Dimming. 1st input channel is intensity changing. 2nd input channel is CCT changing.  
**Light Source:** High output 3-step Mac Adam Ellipse COB  
 Rated life of 50,000 hours at L70  
**Mounting:** Heavy gauge retention clips support trim firmly.  
 Safety cabling standard.  
 Ceiling cut out Round Trimmed: Ø 3 3/16"  
 Invisible Trim: Ø 4 1/4"  
 Ceiling cut out Square Trimmed: 3 3/16" x 3 3/16"  
 Invisible Trim: 4 1/4" x 4 1/4"  
 Accommodates 1/2" - 1 1/2" ceiling thickness  
 Remodel Invisible Trim: 1/2" - 1" ceiling thickness  
**Finish:** Electrostatically powder coated White, Black. Enamel coated Haze. Plated and brushed Copper Bronze.  
**Standards:** ETL & cETL Wet location Listed.

### ORDERING NUMBER

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| Model   | Beam         |        | Lumens<br>Ref Output* | CBCP | Color Temp             | CRI | Finishes   | Reflector/Trim |                        |    |
|---|--------------|--------|-----------------------|------|------------------------|-----|--|----------------|------------------------|----|
|  <p><b>R2RD1T Round Trim</b><br/><b>R2SD1T Square Trim</b></p> | <b>N</b> 25° | Round  | 815                   | 2345 | <b>TWA</b> 1800K-4000K | 98  | <b>BK</b> Black<br><b>BKWT</b> Black/White<br><b>CB</b> Copper Bronze<br><b>HZ</b> Haze<br><b>HZWT</b> Haze/White<br><b>WT</b> White |                |                        |    |
|   |              | Square | 950                   | 2730 |                        |     |  |                |                        |    |
|   | <b>F</b> 35° | Round  | 800                   | 1740 |                        |     |  |                | <b>TWB</b> 2700K-6500K | 98 |
|   |              | Square | 1085                  | 2365 |                        |     |  |                |                        |    |
|   | <b>W</b> 45° | Round  | 630                   | 1050 |                        |     |  |                |                        |    |
|   |              | Square | 745                   | 1240 |                        |     |  |                |                        |    |
|   | <b>N</b> 25° | Round  | 755                   | 3115 |                        |     |  |                |                        |    |
|   |              | Square | 880                   | 3630 |                        |     |  |                |                        |    |
|   | <b>F</b> 35° | Round  | 845                   | 2280 |                        |     |  |                |                        |    |
|   |              | Square | 1150                  | 3105 |                        |     |  |                |                        |    |
|   | <b>W</b> 45° | Round  | 680                   | 1270 |                        |     |  |                |                        |    |
|   |              | Square | 805                   | 1500 |                        |     |  |                |                        |    |

Example: R2SD1T-NTWA-WT

\*Reference output shows **TWA/TWB** trim tuned to 3000K with **22** housing. Use multiplier table below to determine the output for other combinations.

| Lumens & CBCP Multiplier |                     | Color Temperature |       |       |       |       |       |
|--------------------------|---------------------|-------------------|-------|-------|-------|-------|-------|
| <b>TWA</b> (1800K-4000K) | Housing Power Level | 1800K             | 2200K | 2700K | 3000K | 3500K | 4000K |
|                          | <b>22</b> (22W)     | 0.68              | 0.82  | 0.94  | 1.00  | 1.07  | 1.11  |
|                          | <b>15</b> (15W)     | 0.46              | 0.56  | 0.64  | 0.68  | 0.73  | 0.75  |
| <b>TWB</b> (2700K-6500K) | Housing Power Level | 2700K             | 3000K | 3500K | 4000K | 5000K | 6500K |
|                          | <b>22</b> (22W)     | 0.96              | 1.00  | 1.06  | 1.09  | 1.12  | 1.11  |
|                          | <b>15</b> (15W)     | 0.65              | 0.68  | 0.72  | 0.74  | 0.76  | 0.75  |

Example: **R2SD1T-NTWA-WT** tuned to 4000K with **22** housing: 950 lm (Reference Output) x 1.11 (Multiplier) = 1055 lm  
 2730 CBCP (Reference Output) x 1.11 (Multiplier) = 3030 CBCP

Please see next page for housing units (required)

| wacighting.com       | Headquarters, East Manufacturing Facility | South East Manufacturing Facility | Central Manufacturing Facility      | West Manufacturing Facility |
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| Phone (800) 526.2588 | 44 Harbor Park Drive                      | 1600 Distribution Ct              | 1700 South J Elmer Freeway, Ste 100 | 1750 S Archibald Ave        |
| Fax (800) 526.2585   | Port Washington, NY 11050                 | Lithia Springs, GA 30122          | Cedar Hill, TX 75104                | Ontario, CA 91761           |

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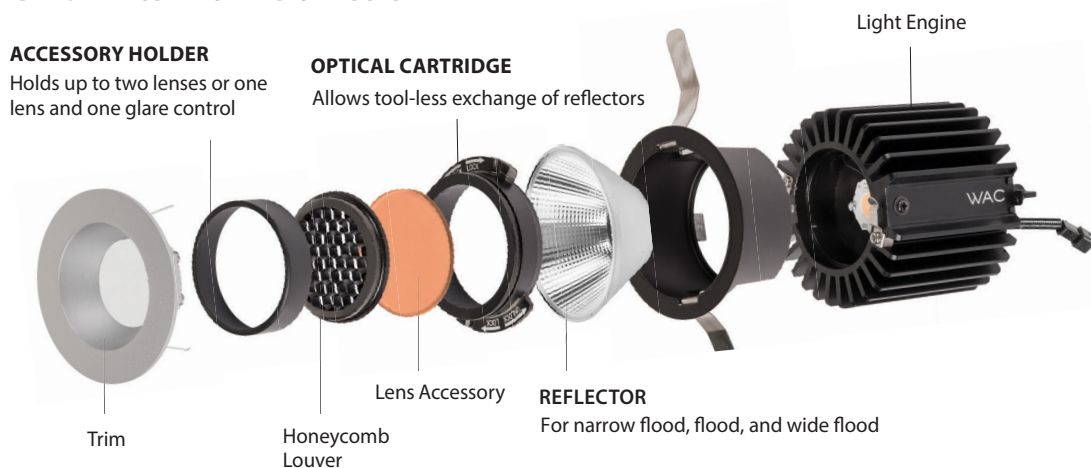
| Housing (Required)                    | Model  | Trim Type                                    | Power  | Driver                                      |
|---------------------------------------|--|--|--|---|
| <b>New Construction, Airtight</b><br> | <b>R2RN</b><br>Round<br><br><b>R2SN</b><br>Square                                      | <b>T</b> Trim<br><b>L</b> Invisible Trim     | <b>15</b> 15W IC<br><b>22</b> 22W Non-IC     | <b>T-X</b> DMX512-A<br><b>T-Z</b> 2CH 0-10V |
| <b>Remodel, Non-IC</b><br>            | <b>R2BR</b><br>Round & Square<br><br><b>R2RR</b><br>Round<br><br><b>R2SR</b><br>Square | <b>T</b> Trim<br><br><b>L</b> Invisible Trim | <b>15</b> 15W Non-IC<br><b>22</b> 22W Non-IC | <b>T-X</b> DMX512-A<br><b>T-Z</b> 2CH 0-10V |

**R2** \_\_\_\_\_ -  
Example: **R2RNT-15T-X**

### WOOD AND METAL CEILING ADAPTERS (For use with new construction housings)

| Round           |                                | Square          |                                |
|-----------------|--------------------------------|-----------------|--------------------------------|
| <b>R2R-ADP1</b> | 1/2" to 1" ceiling thickness   | <b>R2S-ADP1</b> | 1/2" to 1" ceiling thickness   |
| <b>R2R-ADP2</b> | 1" to 1 1/2" ceiling thickness | <b>R2S-ADP2</b> | 1" to 1 1/2" ceiling thickness |

### FIELD CHANGEABLE GLARE CONTROL AND OPTIC SYSTEM



**ACCESSORY HOLDER** sold separately

|                    |   |
|--------------------|---|
| <b>LENS-16-HLD</b> | Required for use with any lens or accessory |
|--------------------|---|

#### GLARE CONTROL ACCESSORIES

|                |  |
|----------------|--|
| <b>LENS-16</b> | <b>HCM</b> Honeycomb Louver<br><b>CRL</b> Cross Louver |
|----------------|--|

#### INTERCHANGEABLE REFLECTORS

|                 |                   |
|-----------------|-------------------|
| <b>REF-R2-N</b> | Narrow Flood beam |
| <b>REF-R2-F</b> | Flood beam        |
| <b>REF-R2-W</b> | Wide beam         |

#### LENS ACCESSORIES

|                |  |
|----------------|--|
| <b>LENS-16</b> | <b>AMB</b> Amber<br><b>RED</b> Red<br><b>FR</b> Frosted<br><b>SPR</b> Spread<br><b>BEL</b> Beam Elongating |
|----------------|--|

|                      |   |                                   |                                     |                             |
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### NATURAL TUNABLE WHITE CCT TUNING:

The CCT of the Volta Tunable White fixture may be adjusted.

Using the DMX byte values in the adjacent table mapped to CH1 and CH2 of the desired output, the Volta Tunable White fixture may be tuned in increments of 100K (Kelvin) from 1800K to 4000K for TWA and 2700K to 6500K for TWB, at full intensity.

**Note:** Through compatible RDM tool, fixture channels can be reassigned to desired consecutive channels. Factory default is DMX channel 1 and 2.

### VOLTA 2" TUNABLE WHITE DMX BYTE VALUE VS CCT

| TWA DMX<br>BYTE VALUES AT FULL INTENSITY |                    |              | TWB DMX<br>BYTE VALUES AT FULL INTENSITY |                    |              |
|--|--------------------|--------------|--|--------------------|--------------|
| CCT (K)                                  | CH 1:<br>INTENSITY | CH 2:<br>CCT | CCT (K)                                  | CH 1:<br>INTENSITY | CH 2:<br>CCT |
| 4000                                     | 255                | 255          | 6500                                     | 255                | 252          |
| 3900                                     | 255                | 253          | 6400                                     | 255                | 249          |
| 3800                                     | 255                | 247          | 6300                                     | 255                | 245          |
| 3700                                     | 255                | 241          | 6200                                     | 255                | 241          |
| 3600                                     | 255                | 233          | 6100                                     | 255                | 238          |
| 3500                                     | 255                | 225          | 6000                                     | 255                | 232          |
| 3400                                     | 255                | 219          | 5900                                     | 255                | 229          |
| 3300                                     | 255                | 210          | 5800                                     | 255                | 228          |
| 3200                                     | 255                | 202          | 5700                                     | 255                | 222          |
| 3100                                     | 255                | 193          | 5600                                     | 255                | 217          |
| 3000                                     | 255                | 185          | 5500                                     | 255                | 212          |
| 2900                                     | 255                | 176          | 5400                                     | 255                | 208          |
| 2800                                     | 255                | 166          | 5300                                     | 255                | 204          |
| 2700                                     | 255                | 154          | 5200                                     | 255                | 199          |
| 2600                                     | 255                | 141          | 5100                                     | 255                | 194          |
| 2500                                     | 255                | 126          | 5000                                     | 255                | 190          |
| 2400                                     | 255                | 109          | 4900                                     | 255                | 185          |
| 2300                                     | 255                | 82           | 4800                                     | 255                | 179          |
| 2200                                     | 255                | 79           | 4700                                     | 255                | 173          |
| 2100                                     | 255                | 64           | 4600                                     | 255                | 168          |
| 2000                                     | 255                | 46           | 4500                                     | 255                | 160          |
| 1900                                     | 255                | 26           | 4400                                     | 255                | 152          |
| 1800                                     | 255                | 0            | 4300                                     | 255                | 144          |
|  |                    |              | 4200                                     | 255                | 138          |
|  |                    |              | 4100                                     | 255                | 131          |
|  |                    |              | 4000                                     | 255                | 123          |
|  |                    |              | 3900                                     | 255                | 115          |
|  |                    |              | 3800                                     | 255                | 107          |
|  |                    |              | 3700                                     | 255                | 98           |
|  |                    |              | 3600                                     | 255                | 89           |
|  |                    |              | 3500                                     | 255                | 80           |
|  |                    |              | 3400                                     | 255                | 71           |
|  |                    |              | 3300                                     | 255                | 62           |
|  |                    |              | 3200                                     | 255                | 51           |
|  |                    |              | 3100                                     | 255                | 41           |
|  |                    |              | 3000                                     | 255                | 30           |
|  |                    |              | 2900                                     | 255                | 16           |
|  |                    |              | 2800                                     | 255                | 4            |
|  |                    |              | 2700                                     | 255                | 0            |

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